ABSTRACT OF THE DISCLOSURE

Method for biomechanical simulation of a set of osseous joints of a patient, in particular rachis, includes recording a digital three dimensional model embodied at least partially in the form of rigid bodies interconnected by joints in a reference position, personalizing the model geometry by specific data of the patient in the reference position, personalizing the digital model by particulating interaction parameters of each joint connecting the rigid bodies according to detected client's characteristics. The particularization of the interaction parameters consists in obtaining the space position of at least the part of the rigid bodies and interpolating for determining the calculated position of other rigid bodies in order to produce a numerical index containing the relative position of each rigid body, performing at least one defined constraint on the patient and collecting information on the general balance position of the patient, and in determining analytical functions which make it possible to approximate the interaction parameters, thereby reproducing the measured relative positions for each couple of rigid bodies.